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C O N F I D E N T I A L
NO FOREIGN DISSEM

COUNTRY Yugoslavia

SUBJECT Bratstvo Armament: Plant, Novi Travnik

REPORT

DATE DISTR. 20 NOV 1963

NO. PAGES 8

REFERENCES

50X1

50X1-HUM

DATE OF INFO.

PLACE & DATE ACQ.

THIS DISSEMINATION ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

50X1-HUM

1. Building M-1 was constructed in 1950-1951; its original dimensions were about 280 x 160 meters. In 1956-1957, a two-story addition was built along the part of the building occupied by the Light Machinery Unit. In 1960-1961 magazines were added along the part of the building occupied by the Heavy Machinery Unit. The height of the roof of the building varies; it is highest over the Heavy Machinery Unit: 10-12 meters to the crane tracks, another 6 meters above the crane, with skylights 4 meters high. In the Light Machinery Unit area, the roof is 10-12 meters high, plus the serrated skylights of 4 meters' height.

2. Building M-1 (Keyed to Sketch No. I)

A. Heavy Machinery Unit (Veliki Masinski Park). Items described in the referenced reports are produced here in series. The following three sections belong to this unit:

c. Heavy Machinery Section

Equipment: more than 100-120 heavy machines, including milling machines, lathes, drilling machines, grinding machines, gear-cutting machines (there are over 50 German and Italian automatic precision gear cutters), etc.

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INFORMATION REPORT INFORMATION REPORT

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Declassified in Part - Sanitized Copy Approved for Release 2013/09/05 : CIA-RDP80T00246A070400060001-3

A large number of the machines are of West German manufacture. Five German automatic electronic machines for the production of dies are operated in an air-conditioned area. In addition, there are VWF /German/, Czechoslovakian TOS, [redacted] Yugoslav Prvo Majska, [redacted] machines. All are in excellent condition; the oldest machines are replaced annually. Series production began in 1952-1953.1/ 50X1-HUM

d. Assembly Section (Montazni Park) 50X1-HUM

Equipment is ultra-modern. All products, including weapons, tanks, etc., are assembled here.

e. Boring Machine Section

Work of this section includes rifling guns up to 5 gauge (twin bore) of the following calibers: 155, 120 (naval), 82, 105, 40 (Bofors), 58 and 60 mm. The section also does borings for ships' propeller shafts of up to 20 gauge.

Equipment: Approximately 40 machines of various types, the majority of them of German manufacture (VWF); in 1959-60, TOS machines, manufactured in Czechslovakia, were installed for the production of Bofors guns and the new Roc coastal gun.

a. Four tracks for 5-ton capacity cranes with operator cabs, 10-12 meters high.

b. Two tracks for 10-ton capacity cranes, similar to above. These cranes were received from West Germany as war damage reparations in 1951.

B. Light Machinery Unit (Laki Masinski Park)

The Light Machinery Unit is divided from the Heavy Machinery Unit by the 5-ton crane pillars.

Series production takes place in this unit, plus the preparation of prototypes of small fine-precision components for the plant's production of weapons.

Detailed descriptions were included in the previous report.

C. Storage Magazines

Five storehouses were completed in 1961 and placed in use in January 1962. They extend along the shorter side of the Heavy Machinery Unit area and are 20 x 45 meters each. They are stone structures with steel supports; the roof is at a 45° angle and covered with Eternit shingle. On the inside they are joined to the main building by steel sliding doors. Each warehouse has an assigned number, as follows:

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Declassified in Part - Sanitized Copy Approved for Release 2013/09/05 : CIA-RDP80T00246A070400060001-3

I Magazine for special apparatus of the Light Machinery Unit, such as lathes, milling machines, etc.;

II Magazine for special apparatus, models, cutting gear, etc.;

III Magazine and workshop for hydraulic equipment, such as brakes, cylinders, etc.;

IV Magazine for general storage of small items for all plant units;

50X1-HUM

V Prototype Unit Magazine; all of the necessary equipment as well as all of the items produced are kept here. This magazine is directly subordinate to the VTI.

50X1-HUM

D. Prototype Unit (Prototipovno Odelenje)

50X1-HUM

No details other than those given above were known

E. Workshops (Kod "Lale" - "Lala's"-the nickname of Captain Dragan Grubacki)

No details other than those included in the previous report were known, except for the fact that the workshops had a moving 5-ton crane.

1. Later addition to the main buildings; these contain public rooms for the entire wing.

2. Magazine, 12 x 12 meters; waste deposits. There is a door into the adjoining building.

50X1-HUM

3. Inspection and Control Shop for all items produced by the Light Machinery Unit. Size: 12 x 12 meters.
Equipment: test bench, equipped with measuring, checking and analysing apparatus

Inspected and passed items were sent to Magazine #12, rejects to Magazine #2.

Head of the Shop and highest qualified specialist: Radovan Cobic; he works under engineers who visit the unit from time to time.

4. Magazine for Measuring Instruments; size: 12x12 meters.
Equipment: micrometers, gauges, etc. The instruments are removed from time to time and then brought back after being used. Repairs of these instruments are also done here.

50X1-HUM

5. Inspection and Control Shop for all gears.
Size: 12 x 12 meters
Equipment: Electronic automatic equipment from Czechoslovakia.

50X1-HUM

The head of this shop was a highly qualified specialist

50X1-HUM

Inspected and passed items were sent to Magazine IV, rejects to Magazine 2.

Declassified in Part - Sanitized Copy Approved for Release 2013/09/05 : CIA-RDP80T00246A070400060001-3

Declassified in Part - Sanitized Copy Approved for Release 2013/09/05 : CIA-RDP80T00246A070400060001-3

6. Welding Shop
Size: 40 x 12 meters

Along the side of the building, closed off only with hanging tarpaulins. Operating on a 24-hour basis, the shop handles all electric and autogenous welding for the plant.

7. Machinery Repair Shop, with 100 highly skilled workers under one foreman; repairs of minor mechanical breakdowns.
Size: 15 x 12 meters.
Equipment: 2 VWF lathes; 2 VWF milling machines; 2 VWF boring machines; 2 grinding machines, one vertical and one horizontal.

8. Paint Shop
Size: 60 x 15 meters

Along the side of the building, closed off with a metal screen; a travelling 10-ton crane runs overhead. There is also an outside door.

Operating on two shifts of 8 hours each, the shop includes one foreman and 10 workers per shift.

The shop has 10 connections for compressed air tubes. The central tube comes from unit 10.

9. "Drop"(Pattern and Die) Shop:
Size: 55 x 35 meters

It is located in the main building, but is separated from it by a wood partition running from the floor to the roof. There are two doors. A 5-ton crane runs overhead. An engineer (nu) is head of the shop, with 5 highly skilled operators under him; the shop operates on 3 shifts of 8 hours each.

The machinery was received from Germany and installed by German technicians in 1958; there are five machines, electronic and automatic, labelled "Drop".

In the shop models and molds for the blacksmith's shop are produced (fans and motors for marine engines and hydroelectric plants; weapon components; parts for FAP truck engines; shafts for FIAT engines; camshafts; various parts for railroad cars; grease boxes for cars, autos, etc.). No other details were known.

10. Compressor Shop
Size: 16 x 20 meters

Entrance from inside the building.
Equipment: 1 large compressor, with a flywheel 4 meters in diameter, purchased in Germany in 1959. Other details not known.

1 Hungarian compressor used only to measure pressures of 2000 - 3000 atmospheres. For these measurements, a bunker built in one corner of the shop is used; this has reinforced concrete walls 1 meter thick.

Declassified in Part - Sanitized Copy Approved for Release 2013/09/05 : CIA-RDP80T00246A070400060001-3

Declassified in Part - Sanitized Copy Approved for Release 2013/09/05 : CIA-RDP80T00246A070400060001-3

50X1

11. Equipment Magazine
Size: 12 x 9 meters

Inside entrance, with metal screen. Storage of equipment purchased [redacted] for the production of Bofors guns only. 50X1-HUM

12. Products Magazine
Size: 12 x 9 meters

Inside entrance, with metal screen. Storage of plant-produced items which passed inspection (#3); Bofors guns are stored here, pending approval by the VTI for shipping to the assembly unit.

13. Test Bench
Size: 12 x 20 meters

Inside entrance. Control and inspection of parts for the recoil mechanism of artillery guns prior to shipment out for field testing. Other details not known.

14. Two magazines, separated by the entrance corridor of the building. The corridor is 15 meters long and 6 meters wide. The magazines, which are 20 meters (x 15 m.) are entered from this corridor. The magazine at the left of the entrance is used for storage of machine oils, special boring oils, grease, naphtha, paints, and other materials. The magazine at the right of the entrance is used for the storage of waste paper, hides, felts, and other similar material.

15. Railroad spur track which joins the factory with the narrow gauge railroad line.

16. Three barrier posts, with guardhouses, where industrial police are always stationed.

3. Light Machinery Unit (Lake Masinski Park) (keyed to Sketch No. 2)

This area forms part of the M-1 Building and is 116 x 55 meters in size, 10-12 meters high, and is divided from the Heavy Machinery Unit by trellis pillars on which run the tracks of the 5-ton crane. In this area the series production of all light machinery items, as well as precision items for weapons production and other necessary items for the industrial complex takes place.

1. Entrance, with a stairway all across; at the door of the building there is an industrial militia guard post.

2. Part built in 1956-1957 all along the side of the building; this includes a ground floor and a second floor. The ground floor has a dining room, coat room, baths, and restrooms. On the second floor are the technical and administrative offices for the whole building. Personnel can go up there only if they are identified.

3. Rejected Items Deposit

4. Inspection and Control Shop for products of the Light Machinery Unit

Declassified in Part - Sanitized Copy Approved for Release 2013/09/05 : CIA-RDP80T00246A070400060001-3

Declassified in Part - Sanitized Copy Approved for Release 2013/09/05 : CIA-RDP80T00246A070400060001-3

50X1

5. Magazine for Storage of Measuring Apparatus and Equipment

6. Inspection and Control Shop for all Products and Gears

7. Compressor Shop

8. Magazine for Storage of Bofors Gun Production Equipment

9. Magazine for Storage of Bofors Guns

10. Test Bench for Artillery Weapons

11. Trellis pillars with 5-ton crane tracks, dividing the two Machinery Units.

12. Lathe Section:

20 lathes, VWF, acquired in Hamburg in 1951-1952. They are all in excellent condition and rarely break down. Of these 20 lathes, the first six are 4 meters long and the rest, 3 meters. Each has its own electric motor which operates on a 360-Volt current. They are called "universal lathes" and are not automatic.

8 lathes, Czech TOS, acquired in 1959-1960. They are more or less similar to the previous ones and are considered excellent. They are located near the milling section.

Two, and sometimes three, shifts of 8 hours each operate these lathes.

Here are produced all items up to 30 kilograms in weight, of the greatest precision, for weapons, plus engine parts and in general all that is required for the production of the entire complex.

13. Milling Section:

20 milling machines, arranged in 3 parallel rows, as follows:

13 German-made machines, operator-controlled; once set up, they function automatically; the working suface is 1.5-2 square meters. They were installed in 1952 and are in excellent condition.

4 Yugoslav Prvo Majska machines, installed in 1954; they were not made of good materials and suffer frequent breakdowns; they are similar to the preceding ones and were built by the Prvo Majska factory from the same basic designs.

3 Czech TOS machines, acquired in 1959-1960, in excellent condition. On these machines the work requiring the greatest precision is done; operation is completely automatic. Among other items, parts for the Bofors gun and in general all major-precision items of no more than 30 kilograms in weight are machined.

50X1-HUM

14. Automation Section

This section includes a total of 20 machines, some acquired in Germany in 1952, Magdeburg and Pipler; [redacted] (not further observed) and two Czech (marking not known). All are in excellent condition. These machines are used during 3 shifts

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Declassified in Part - Sanitized Copy Approved for Release 2013/09/05 : CIA-RDP80T00246A070400060001-3
50X1

of 8 hours each. Each is 1 meter to a maximum of 1 x 3 meters in size. They are completely automatic and equipped with 360-Volt motors. The operator sets the machine and then the machine accomplishes the work by itself.

In this section are produced: screws, bolts, weapons' parts, valves for acquaducts; bearings for the Fiat 600 (Kragujevac factory) and in general all that such machines normally produce.

15. Grinding Machine Section; there are altogether 10 machines, arranged in two parallel rows, as follows:

8 German VWF machines, of two different sizes; the smaller has a surface 1 x 1 meter, and the other, 1.5 x 5 meters;

2 Yugoslav "Prvo Majska machines, with a surface 1.5 x 3 meters.

No other details were known.

50X1-HUM

4. Miscellaneous

a. No information on production is known

b. The prices of products sold to various countries are never revealed to the plant personnel; these are said to be handled directly by top-level authorities of the Government and of the Party.

c. It is a definite fact that nothing was exported to countries of Western Europe.

d. Transportation is always by military trucks, which loads the goods inside the factory and carries it mainly to the ports of Ploce or Rijeka (Fiume) where they are shipped only on Yugoslav vessels. Deliveries take place constantly.

50X1-HUM

e. The weapons are packed in wooden boxes, with the name of the country of destination written on them, but always with no distinguishing factory marking.

50X1-HUM

f. the shipment of arms to Cuba. people speak favorably of Cuba but nothing else.

50X1-HUM

g. No other information was known about the Algerian mission.

50X1-HUM

h. About the "civilians" believed to be Russians

50X1-HUM

(1) These visits occurred frequently; in addition there were visits of various delegations - cultural, trade, etc. - which always included Soviet officials. People of the plant talked more or less openly about this. In the factory it was known that Soviet-Yugoslav collaboration had reached a very high level.

(2) In addition to these visits, the Soviets in mufti also visited Yugoslav officials very frequently.

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50X1

(3) Several times Rumanian and Bulgarian officials were observed. These visits, were kept fairly quiet, but plant personnel recognized the nationality by the language spoken. 50X1-HUM

i. With reference to the control of the Industrial Militia, [redacted] At the entrance [redacted] had to show [redacted] passbook, which was a grey-green color with a diagonal red stripe; on 50X1-HUM one page was [redacted] photograph with personal data (name, nationality, date of birth, place of birth, etc.). On the other side were 50X1-HUM stamped the months of the current year. Once a month, the Industrial Militia put a red stamp with the date [redacted] in the appropriate column. The diagonal red stripe was only on the books of employees of Building M-1; those assigned to other buildings had the same book without the stripe. Persons with books with the red stripe could enter all buildings of the complex, while those whose books did not have this marking could enter only their own place of employment. The employees of the Prototype Section and Workshop "E", in addition to the passbook had a metal disc with a number and "BTO" (for Bratstvo) on it. This disc had to be worn, during work, on the left side of the overalls. 50X1-HUM

5. [redacted]

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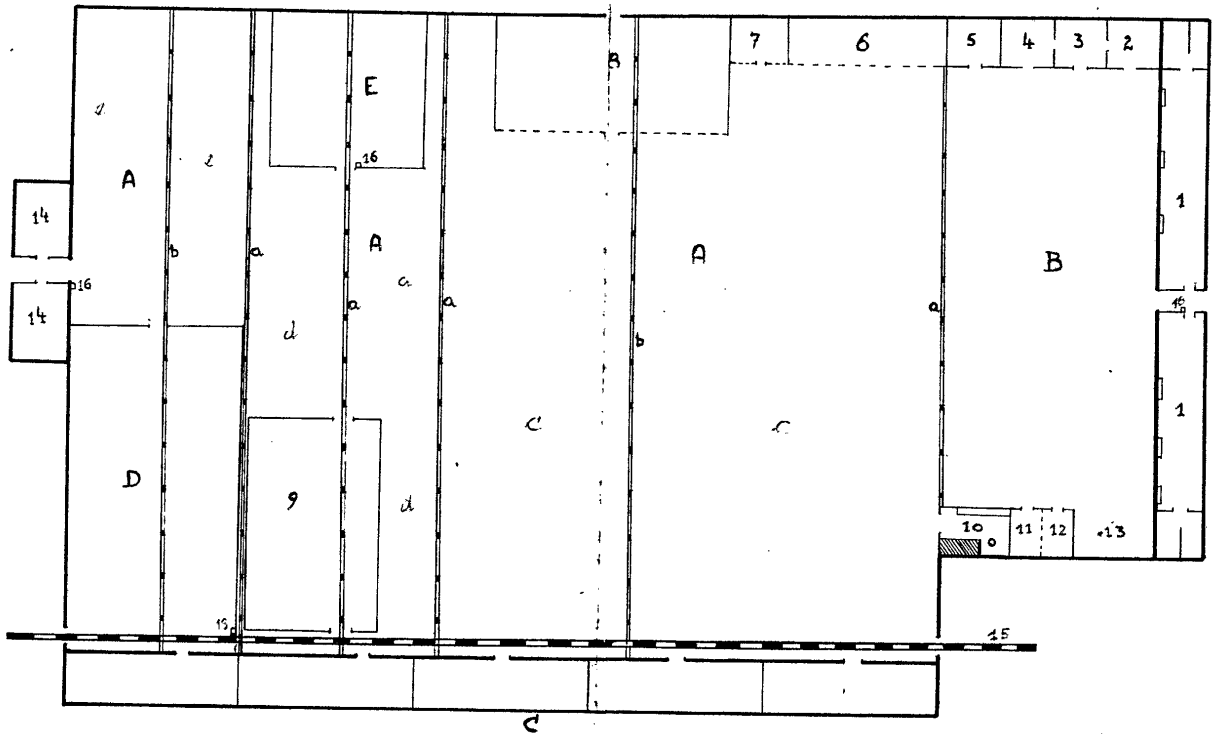

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50X1-HUM

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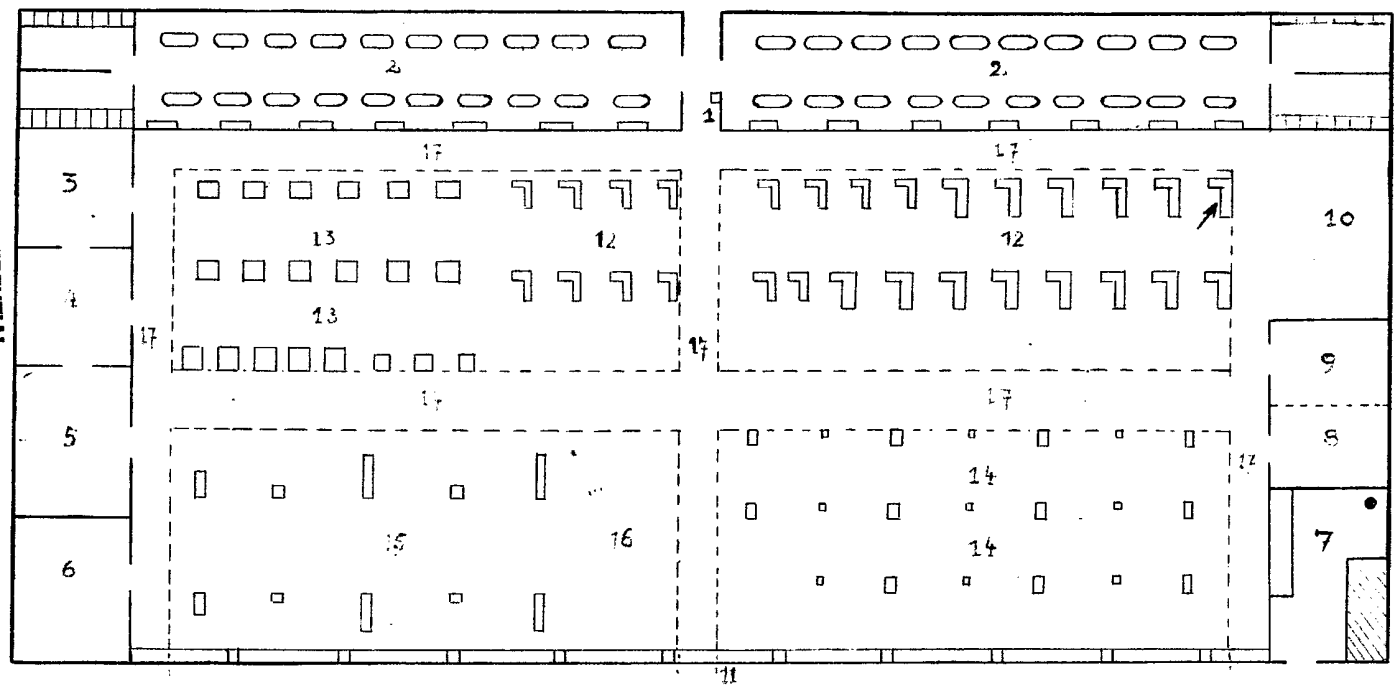

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